

**Alcova Powerplant  
30-100 MW**

**Ancillary Services**

<b>Alcova Ancillary Services</b>	
Spinning Reserve	Yes
Non-Spinning Reserve	Yes
Replacement Reserve	Yes
Regulation/Load Following	Yes
Black Start	No
Voltage Support	Yes

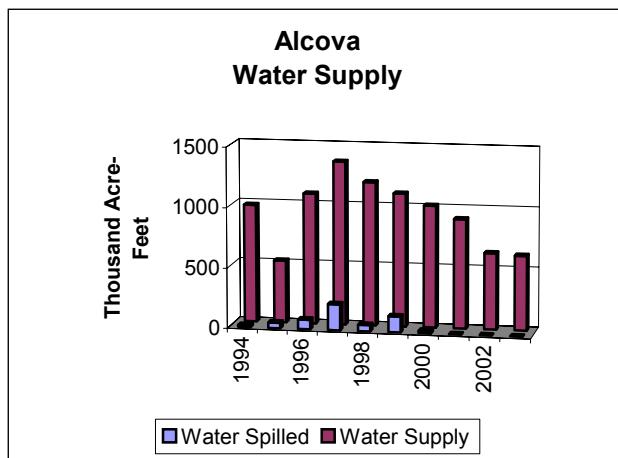
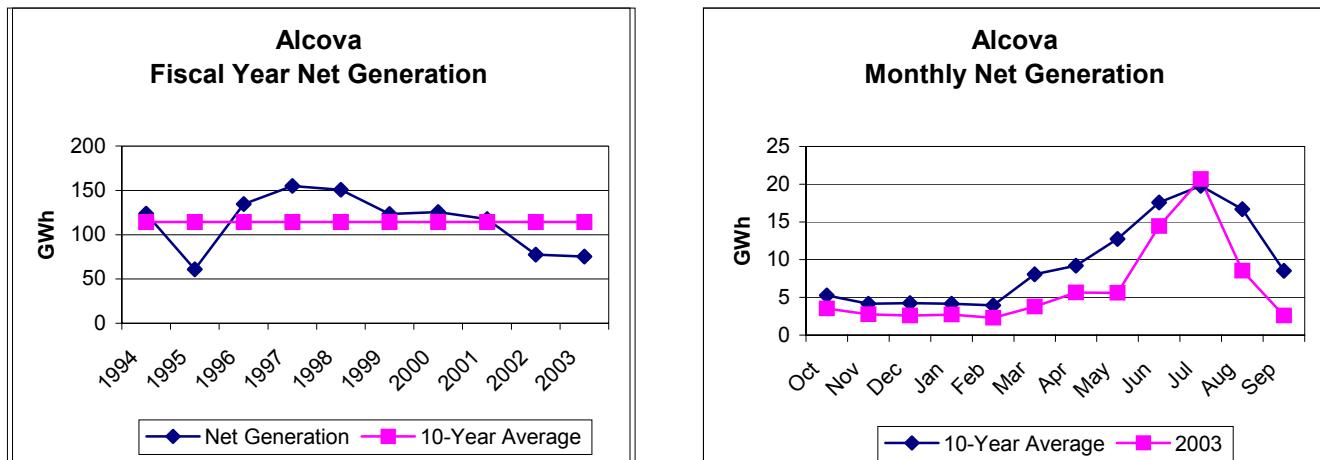
**Generators**

<b>Alcova Generators</b>			
Existing Number and Capacity			
Unit #	Original Capacity (kW)	Capacity Increased (kW)	Present Capacity (kW)
1	18,000	2,700	20,700
2	18,000	2,700	20,700
2 Units	36,000	5,400	41,400

Units 1 and 2 were rewound in FY-2002 and FY-2001, respectively, for a 1.0 power factor which increased the rating per unit to 20,700 kW.

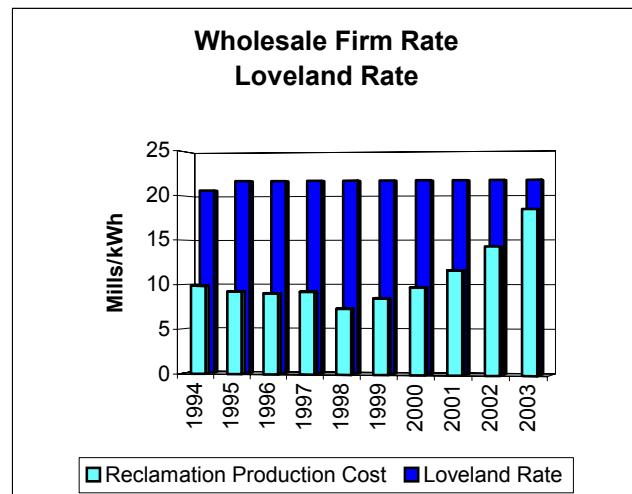
**Alcova Powerplant**  
**30-100 MW**

**Generation**

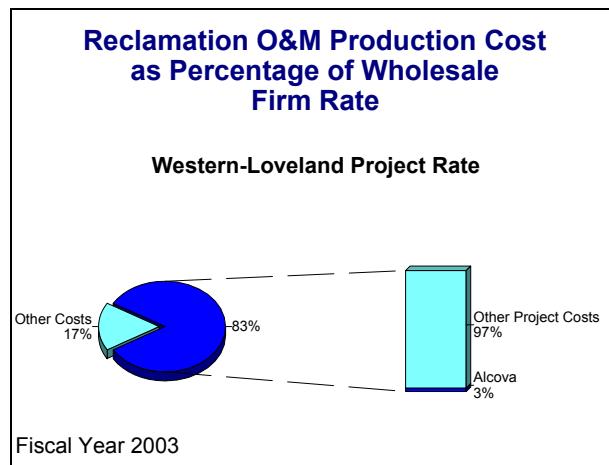


**Prime Laboratory Benchmarks**

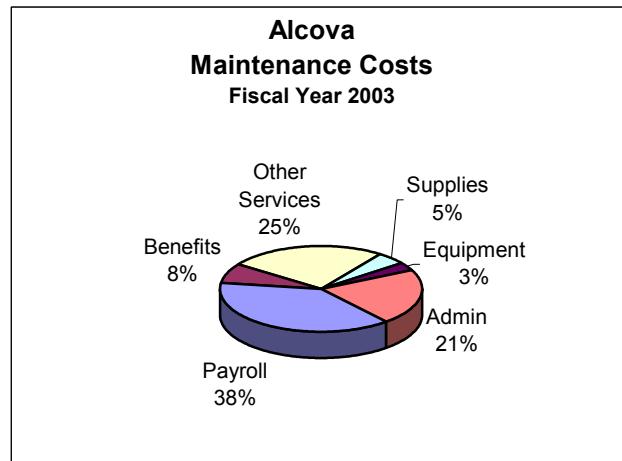
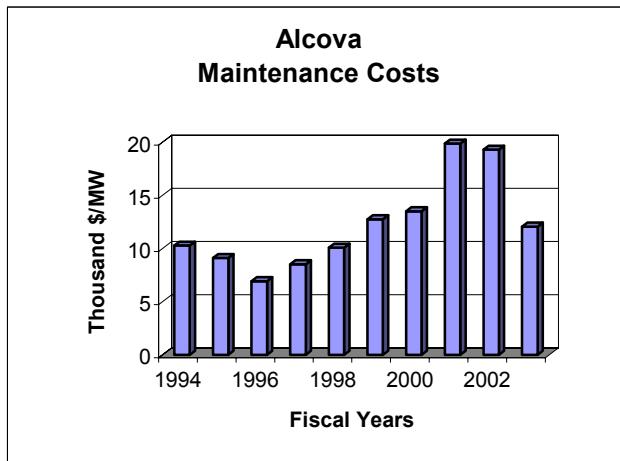
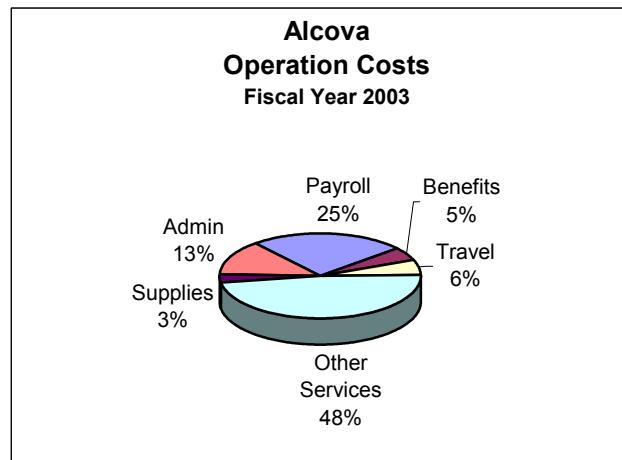
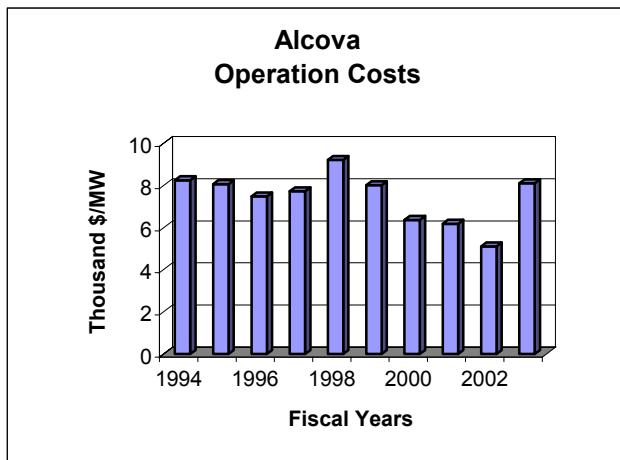
**Benchmark 1**  
**Wholesale Firm Rate**



**Benchmark 2**  
**Reclamation's production Cost as Percentage of Wholesale Firm Rate**

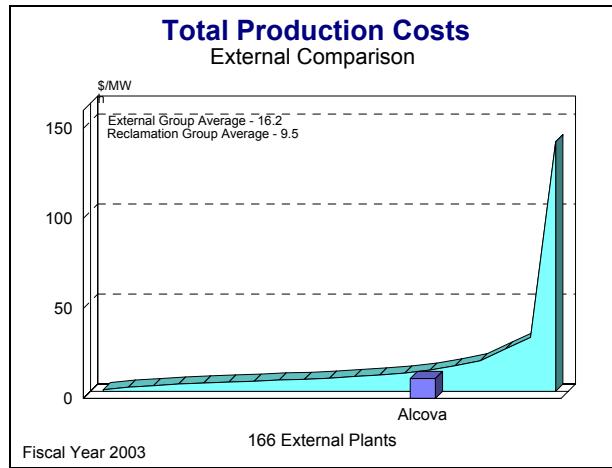
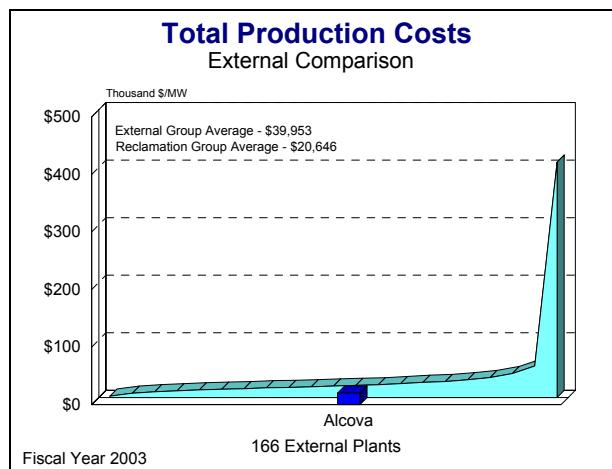
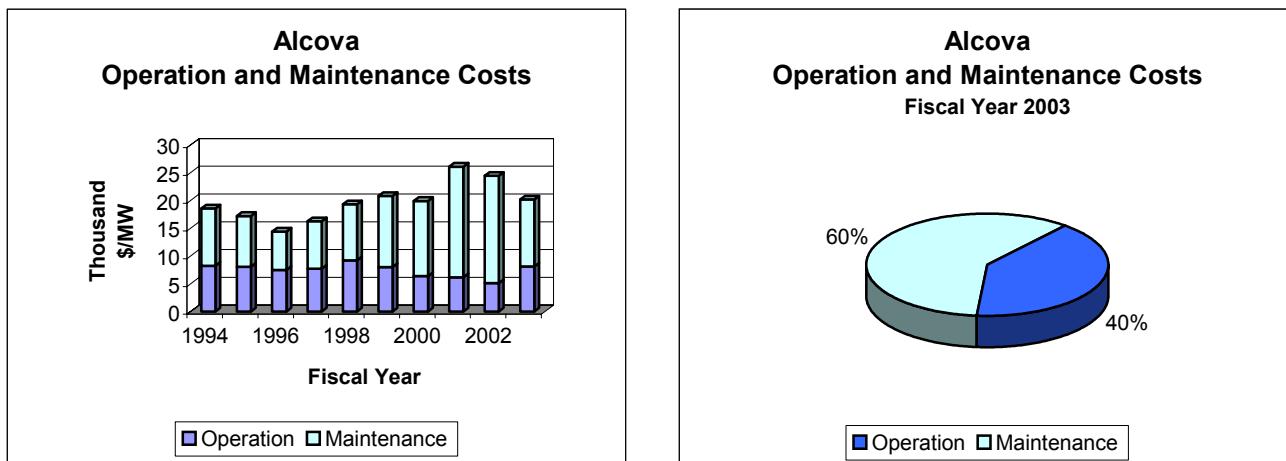


**Benchmark 3**  
**Production Costs**



Overhaul of generator turbines in conjunction with rewind of Unit 2 in FY-2001 and Unit 1 in FY-2002.

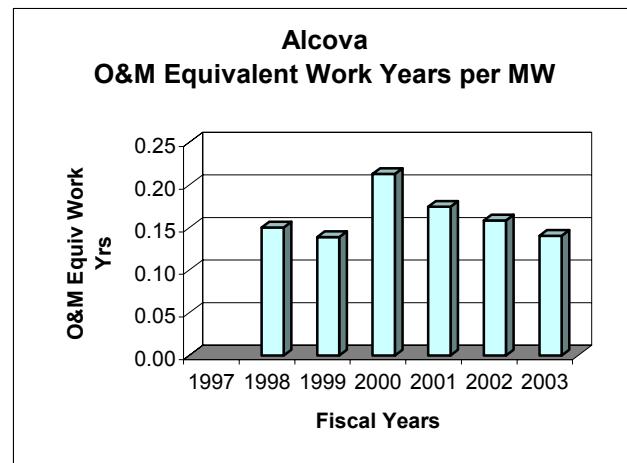
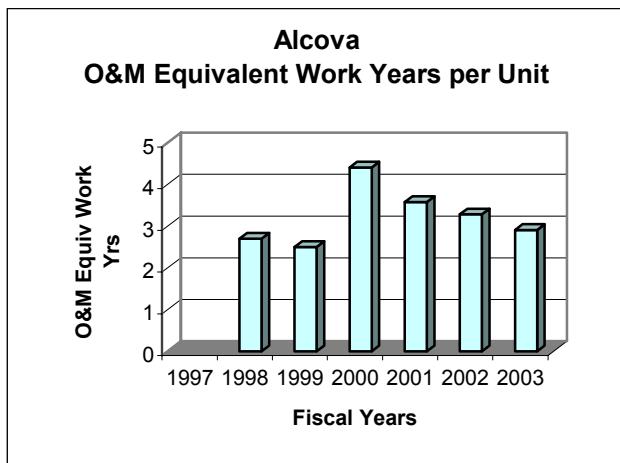
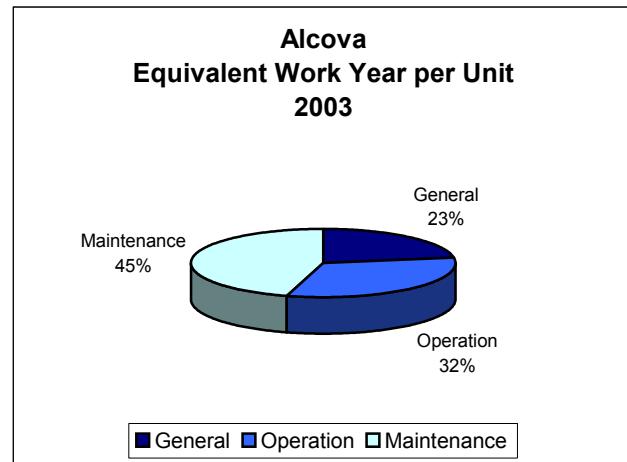
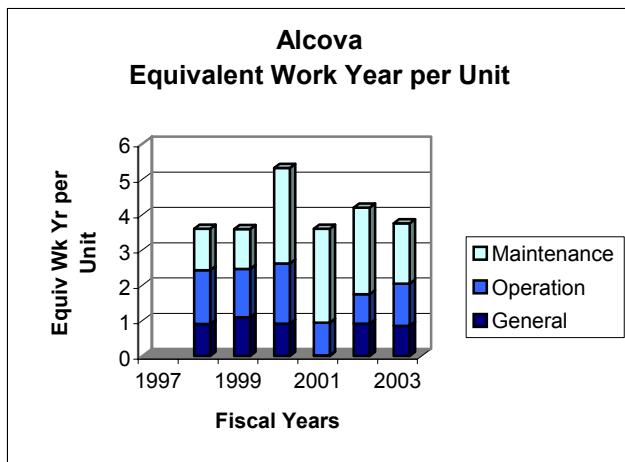
**Benchmark 3**  
**Production Costs**



**Alcova Powerplant**  
**30-100 MW**

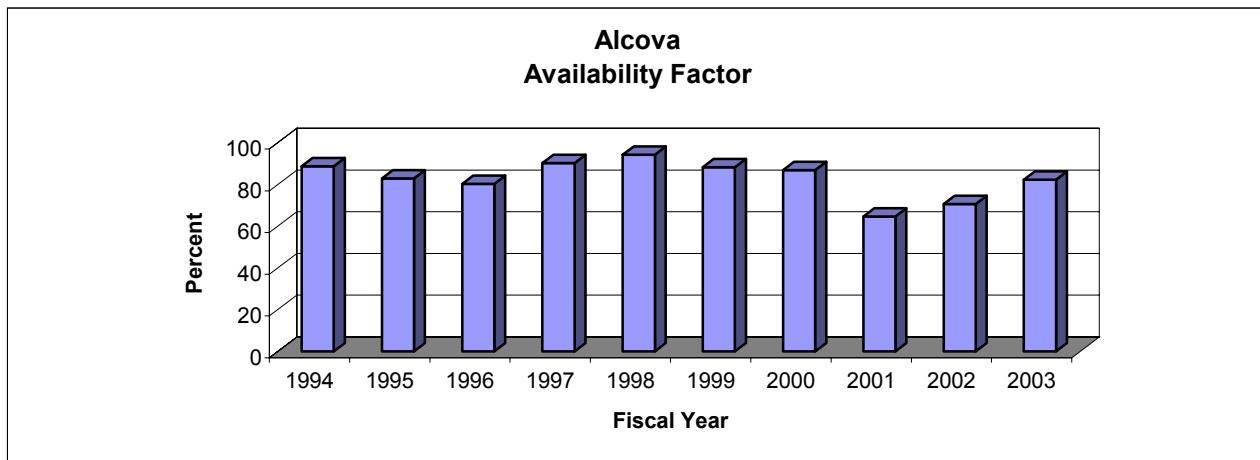
**Benchmark 4**  
**Workforce Deployment**

<b>Alcova</b> <b>2003 Equivalent</b> <b>Work Year Levels</b>						
	Equiv Work Year Charged to Powerplant	Leave Additive	Denver and Washington Equiv Work Year Additive	Total Equiv Work Year Allocated to Powerplant	Total Equiv Work year per Generating Unit	Total Equiv Work Year per Megawatt
General	1.5	0.16	0.04	1.7	0.85	0.041
Operation	2.16	0.23	0	2.4	1.2	0.06
Maintenance	3.09	0.33	0	3.42	1.71	0.08
Total Staffing	6.75	0.72	0.04	7.51	3.76	0.18



Distributive Accounts not available for FY-97

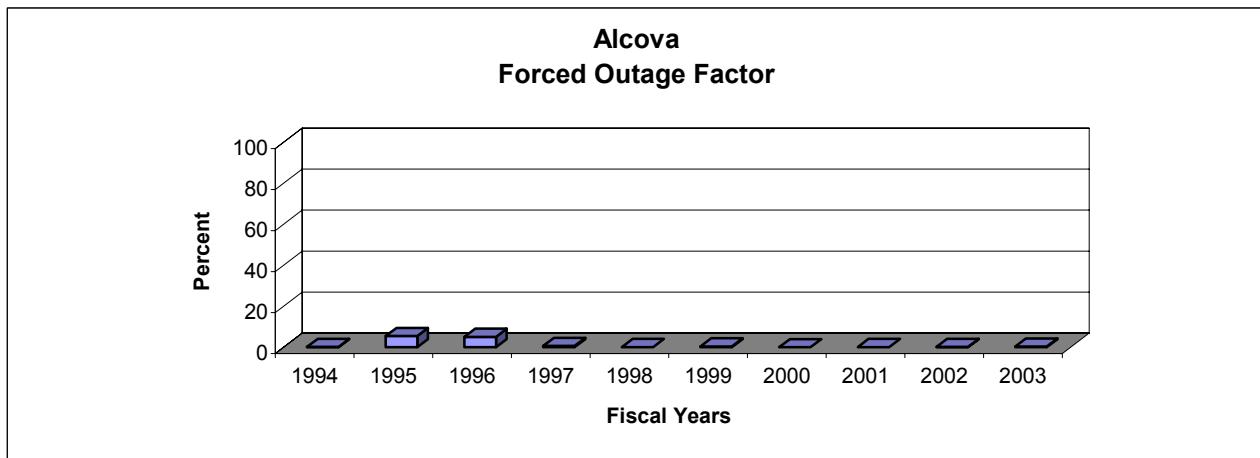
**Benchmark 5  
Availability Factor**



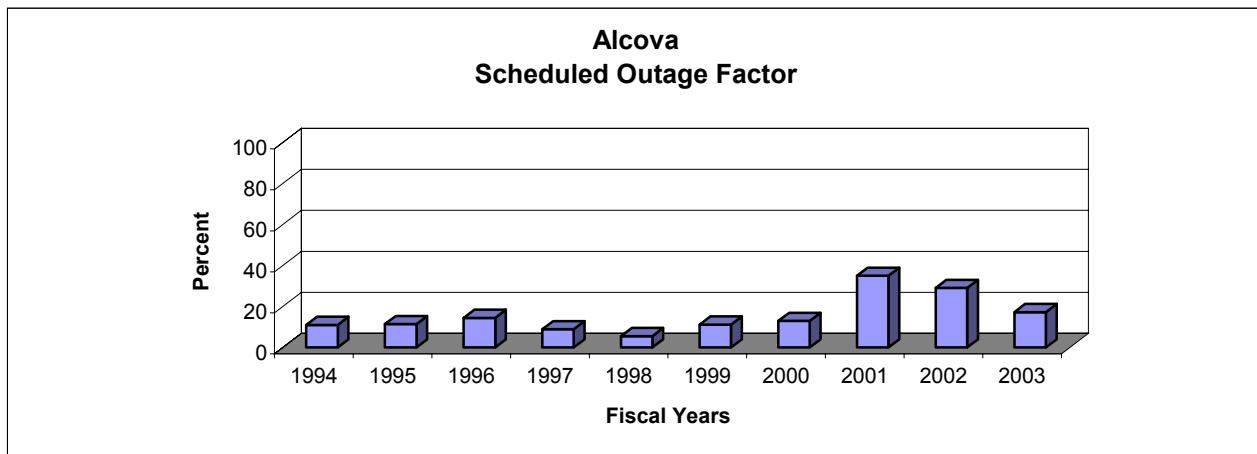
FY-2001 - Extended outage on Unit 2 for rewind and overhaul.

FY-2002 - Extended outage on Unit 1 for rewind and overhaul

**Benchmark 6  
Forced Outage Factor**

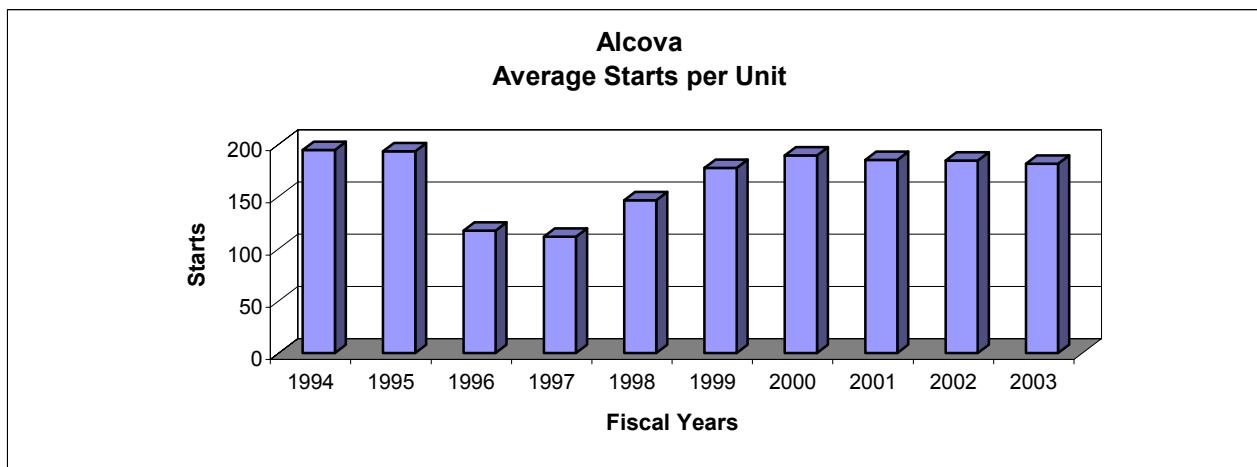


**Benchmark 7  
Scheduled Outage Factor**



- FY-1996 - Units 1 and 2 transformers replaced
- FY-2001 - Extended outage on Unit 2 for rewind and overhaul.
- FY-2002 - Extended outage on Unit 1 for rewind and overhaul.
- FY-2003 - Unit 2 scheduled outage extended to rebuild governor after the annual inspection.

**Starts**



## Benchmark Data Comparison

Fiscal Year 2003	Alcova Powerplant	Reclamation Average 30-100 MW Group	Total Reclamation Average	Industry Average	Best Performers
<b>Wholesale Firm Rate Mills/kWh</b>	21.7	Not Applicable	*23.1	Not Available	Not Available
<b>Production Cost as Percentage of Wholesale Firm Rate</b>	2.43%	Not Applicable	12.0%	Not Applicable	Not Applicable
<b>O&amp;M Cost \$/MWh</b>	11.1	7.6	2.7	16.2	1.1
<b>O&amp;M Costs \$/MW</b>	20,174	19,010	7,315	39,953	3,108
<b>O&amp;M Equiv Work Year per MW</b>	0.1	0.1	0.04	Not Available	0.010
<b>Availability Factor</b>	82.4	87.6	83.6	**88.9	99.1
<b>Forced Outage Factor</b>	0.3	0.5	1.5	**2.4	0.0
<b>Scheduled Outage Factor</b>	17.3	11.8	14.9	**8.7	0.0

\*Weighted by Net Generation

\*\*2002 NERC Average